What is claimed is:

1. A distributed base station system comprising:

a base band unit (BBU), which comprises a Main Processing & Timing unit, a base band signal processing unit, a transmission unit, and an interface unit for providing an interface for intercommunicating data with an external unit, intercommunicating digital base band signals with the base band signal processing unit, and intercommunicating master control information with the Main Processing & Timing unit; wherein the interface unit comprises one or a plurality of primary base band Radio Frequency (RF) interface(s); and the interface unit being integrated with the Main Processing & Timing unit, the base band signal processing unit and the transmission unit; and

a Radio Frequency unit (RFU) which comprises a secondary base band RF interface thereon;

wherein the primary base band RF interface of the BBU is connected with the secondary base band RF interface of the RFU, and the BBU transmits uplink/downlink base band data and master controller state information with the RFU via the primary base band RF interface and the secondary base band RF interface.

2. The system according to Claim 1, wherein the primary base band RF interface and the secondary base band RF interface both are high speed digital interfaces.

3. The system according to Claim 1, wherein the base station system comprises a plurality of BBUs, and the BBUs are interconnected with each other via wire cables or optical fibers; the interface unit of each BBU comprises one or a plurality of primary capacity expansion interface(s) for transmitting synchronous clock signals, base band information, transmission information and the master control information among BBUs, to achieve interconnection and data sharing among BBUs.

4. The system according to Claim 3, wherein the primary capacity expansion interface comprises a primary capacity expansion interface that provides an active/standby switchover control signal.

5. The system according to Claim 3, wherein the interface unit further comprises an identification interface for marking the type of the base station and the position of the BBU. 6. The system according to Claim 3, wherein the interface unit further comprises a Dry Contact input interface for expanding the input Dry Contact functions of the base station.

7. The system according to Claim 3, wherein the BBUs comprise a master BBU that works in an active state.

8. The system according to Claim 7, wherein the BBUs comprise a standby BBU that works in a standby state.

9. The system according to Claim 8, wherein the RFU is connected with any one of the plurality of BBUs.

10. The system according to Claim 7, wherein the BBUs comprise a slave BBU that works in a slave state.

11. The system according to Claim 3, further comprising: an exchange BB cassette with a plurality of secondary capacity expansion interfaces, and each BBU is connected with one of the secondary capacity expansion interfaces on the exchange BB cassette via the respective primary capacity expansion interface of the BBU.

12. The system according to Claim 1, wherein the RFU is a radio remote unit (RRU).

13. The system according to Claim 12, wherein the RRU and the BBU are connected with each other via transmission mediums.

14. The system according to Claim 1, wherein the RFU is a near-end RFU.

15. The system according to Claim 1, wherein the BBU is placed in a spare space of a standard cabinet with a height higher than or equal to 1U.

16. A method for networking a distributed base station system, comprising:

separating the base station system into a BBU and an RFU in dispersed arrangement, wherein the BBU comprises an integration of a base band signal processing unit, a transmission unit, a Main Processing & Timing unit and a interface unit; the interface unit of the BBU comprises a primary base band RF interface, and the RFU comprises at least one secondary base band RF interface; and

connecting the BBU and the RFU through the primary base band RF interface of the BBU and the secondary base band RF interface of the RFU.

17. The method according to Claim 16, wherein the base station system comprises a plurality of BBUs, and the interface unit of each BBU comprises a primary capacity expansion interface;

the method further comprising:

setting an operation state of the BBU; and

connecting the BBUs with each other via the primary capacity expansion interface on the interface unit thereof.

18. The method according to Claim 16, wherein the base station system comprises a plurality of RFUs, each RFU comprises a plurality of base band RF interfaces;

the method further comprising:

connecting a plurality of RFUs with each other via their respective secondary base band RF interfaces.

19. The method according to Claim 17, wherein the base station system comprises two BBUs and the step of setting the operation state of the BBU comprises: setting one of the BBUs as a master BBU that works in an active state while setting the other BBU as a standby BBU that works in a standby state; and

the step of connecting the BBUs to each other via the primary capacity expansion interface comprises: connecting the master BBU to the standby BBU via the primary capacity expansion interface that provides an active/standby switchover control signal.

20. The method according to Claim 17, wherein the step of setting the operation state of BBUs comprises: setting any one of the plurality of BBUs as a master BBU that works in the active state, and setting the others as slave BBUs that work in slave states;

the step of connecting the BBUs to each other via the primary capacity expansion interface comprises: connecting the master BBU and slave BBUs via one or a plurality of primary capacity expansion interface(s) providing no active/standby

switchover control signal.

21. The method according to Claim 17, wherein the step of setting the operation state of the BBU comprises: setting any one of the plurality of BBUs as a master BBU that works in an active state, and setting the others as slave BBUs that work in slave states;

the step of connecting BBUs with each other via the capacity expansion interfaces comprises: connecting the master BBU with the slave BBUs via one or a plurality of primary capacity expansion interface(s) providing the active/standby switchover control signal; and the Main Processing & Timing unit of the master BBU shielding the active/standby switchover control signal.

22. The method according to Claim 20, wherein the step of connecting BBUs with each other via the capacity expansion interfaces comprises: connecting the master BBU with each of the slave BBUs via one or a plurality of primary capacity expansion interface(s) providing active/standby switchover control signals; and the Main Processing & Timing unit of the master BBU shielding the active/standby switchover control signal.

23. The method according to Claim 17, wherein the step of setting the operation state of BBU comprises: setting anyone of the a plurality of BBUs as a master BBU that works in an active state, setting another one of the plurality of BBUs as a standby BBU that works in standby state, and setting the others as slave BBUs working in slave states, the master BBU and the standby BBU being not the same one; and wherein

the step of connecting BBUs with each other via the primary capacity expansion interfaces comprises: connecting the master BBU with the standby BBU via the primary capacity expansion interface that provides the active/standby switchover control signal, and connecting the standby BBU with the slave BBU via one or a plurality of primary capacity expansion interface(s) providing no active/standby switchover control signals.

24. The method according to Claim 17, wherein the step of setting the operation state of BBUs comprises: setting any one of the plurality of BBUs as a master BBU

that works in an active state, setting another one of the plurality of BBUs as a standby BBU that works in a standby state, and setting the others as slave BBUs that work in slave states, the master BBU and the standby BBU being not the same one; and wherein

the step of connecting BBUs to each other via the primary capacity expansion interfaces comprises: connecting the master BBU with the standby BBU via the primary capacity expansion interface that provides the active/standby switchover control signal, and connecting the standby BBU with the slave BBU via one or a plurality of primary capacity expansion interface(s) providing the active/standby switchover control signal, and the Main Processing & Timing unit in the standby BBU shielding the active/standby switchover control signal.

25. The method according to Claim 23, wherein the step of connecting BBUs to each other via capacity expansion interfaces comprises: connecting the standby BBU with each slave BBU via one or a plurality of primary capacity expansion interface(s) providing the active/standby switchover control signal with the Main Processing & Timing unit in the standby BBU shielding the active/standby switchover control signal.

26. The method according to Claim 20, wherein the base station comprises a plurality of slave BBUs, and the plurality of slave BBUs are interconnected with each other via the primary capacity expansion interfaces, the method further comprising any one step of the following steps:

interconnecting slave BBUs to each other via primary capacity expansion interfaces that provide no active/standby switchover control signal;

interconnecting slave BBUs to each other via primary capacity expansion interfaces that provide the active/standby switchover control signal, meanwhile shielding the active/standby switchover control signal by the Main Processing & Timing unit of at least one of the two interconnected slave BBUs.

27. The method according to Claim 17, further comprising: configuring an exchange BB cassette with a plurality of secondary capacity expansion interfaces among the BBUs; and

connecting the plurality of BBUs with the secondary capacity expansion interfaces of the exchange BB cassette via the respective primary capacity expansion interfaces of BBUs to achieve interconnection among the BBUs.

28. The method according to Claim 27, further comprising: the exchange BB cassette setting up an electrical connection of the active/standby switchover control signal between the master BBU and the standby BBU according to the operation state of every BBU.

29. The method according to any of Claims 16~25, wherein the RFU is a radio remote unit (RRU), and the method comprises: connecting the BBU and the RRU via a transmission mediums.

30. The method according to Claim 29, wherein the transmission mediums are optical fibers or electrical cables.

31. The method according to any of Claims 16~25, wherein the RFU is a near-end RFU.

32. The method according to any of Claims 18~28, wherein the BBUs are connected with each other via transmission mediums.

33. The method according to Claim 32, wherein the transmission mediums are optical fibers or electrical cables.

34. A base band unit (BBU), comprising:

a Main Processing & Timing unit, for controlling a base station, exchanging signals and traffic data among the units in the base station and providing clock signals;

a base band signal processing unit, for processing symbol-level and chip-level digital signals in physical layer;

a transmission unit, which is connected with a base station controller for intercommunicating data information between the base station and the base station controller; and

an interface unit for intercommunicating with external data information, intercommunicating digital base band signals with the base band signal processing unit, and intercommunicating master control information with the Main Processing &

Timing unit;

wherein the interface unit comprising one or a plurality of primary base band RF interface(s) for connecting with the RFU and transmitting uplink/downlink base band data and master controller state information with the RFU; a power supply interface for connecting with an external power supply; and a debugging interface for managing and maintaining the base station; and

the Main Processing & Timing unit, the base band signal processing unit, the transmission unit and the interface unit are integrated.

35. The Base band unit according to Claim 34, wherein the primary base band RF interface is a high speed digital interface.

36. The Base band unit according to Claim 34, wherein the debugging interface is a serial port and /or a network port.

37. The Base band unit according to Claim 34, wherein the interface unit further comprises an identification interface for marking the type of the base station and the position of the BBU, and the identification interface is a DIP switch and /or a cable identification interface.

38. The Base band unit according to Claim 34, wherein the reset interface is a button or a switch.

39. The Base band unit according to Claim 34, wherein the power supply interface further comprises a warning bus interface for connecting with an equipment with RS485 port.

40. The Base band unit according to Claim 34, wherein the interface unit further comprises: a capacity expansion interface for transmitting clock synchronous signals, base band information, transmission information and master control information among BBUs to achieve interconnection and data sharing among BBUs.

41. The Base band unit according to Claim 40, wherein the interface unit further comprises at least one of:

a reset interface for resetting the base station;

an identification interface for marking the type of the base station and the position of the BBU;

a power supply switches for controlling power on and power off for itself;

a test interface for connecting with external test equipments;

a signal input interface for receiving external clock signals;

a Dry Contact input interface for expanding input Dry Contact functions of the base station;

an electrostatic discharge (ESD) connector; and

a protect ground (PGND) terminal.

42. The Base band unit according to Claim 40, wherein the capacity expansion interface comprises one or a plurality of capacity expansion interface(s) providing the active/standby switchover control signal.

43. The Base band unit according to Claim 41, wherein the signal input interface comprises at least one of a signal input interface for receiving GPS synchronous clock signals and a signal input interface for receiving 2M synchronous clock signals.

44. The Base band unit according to Claim 41, wherein the test interface comprises at least one of a 10M test interface for outputting 10M test synchronous clock signals and a transmission time interval (TTI) test interface for outputting TTI signals.

45. The Base band unit according to any of Claims 34~44, wherein the BBU is placed in a spare space of a standard cabinet with a height higher than or equal to 1U.

46. The Base band unit according to any of Claims 34~44, wherein the Main Processing & Timing unit, the base band signal processing unit, the transmission unit and the interface unit are integrated on a single board.